



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/697,450

10/30/2003

Brian Tracey

1062/D75

7964

73544

7590

02/01/2008

Michelle Saquet Temple

DEKA Research & Development Corporation

340 Commercial Street

Manchester, NH 03101-1129

EXAMINER \*

WEINSTEIN, LEONARD J

ART UNIT

PAPER NUMBER

3746

MAIL DATE

DELIVERY MODE

02/01/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/697,450

Applicant(s)

TRACEY ET AL.

Examiner

Leonard J. Weinstein

Art Unit

3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 31 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-66 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-66 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 11/15/2007.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This office action is in response to the amendment of December 31, 2007. In making the below rejections and/or objections the examiner has considered and addressed each of the applicant's arguments.

2. The examiner acknowledges the amendment to claim 49.

#### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mattson et al. 5,638,737 in view of Snodgrass et al. 6,109,881. Mattson teaches all the limitations as claimed for a bezel assembly including: a bezel 70 for use in delivery of a pressure having a rigid block 74 having a plurality of ports 52 on a port side 30 of the rigid block, each port 52 providing a solvent bondable tubing connection 48a and 48b to the bezel, a plurality of cavities 56 and 58 on a pumping side 72 of the rigid block, each cavity in fluid communication, via 50a,

through the rigid block with one of the ports 52 for delivering a pressure applied to the port through the solvent bondable tubing connection 48; wherein the port side 30 is opposite to a pumping side 72, with element 72 and element 30 on opposite sides of a chamber bordered by element 78 and wherein port 52 extends from the side of element 30 of element 70 through the rigid block to a side of pump element 72; the ports are hollow tubular structures 52 integral with the rigid block and extending out from the port side 30 of the rigid block; ports 52 have inner diameters larger in size than the cavity, 58 or 56, in fluid communication therewith (figure 2); a first depression 50a in the pumping side 72 of the rigid block, the first depression having at least one 58 of the cavities therein; ribs 40 extending up from the first depression 50a to form an elevated 450 (see figure 5) contour 47 above the pumping side 72 of the rigid block, 76b in figure 1, and the ribs 40 allowing pressure, via 44 and 45, applied through the at least one cavity 58 in the first depression 50a to be applied over the elevated contour, 450 (see figure 5); the ribs 40 form a symmetrical grid, 44 and 45, of air passages; the first depression 50a includes a chamber wall 58 from which the ribs 40 extend such that removal of the ribs 40 leaves an open chamber defined by the chamber wall 54 and 55; the ribs, 40 are removable, figure 3, by a milling operation; an open chamber formed by a second depression 50b in the pumping side 72 of the rigid block; each of the first and second depressions, 50a and 50b, include two, 56 and 58, of the cavities; the ribs 40 are arranged to provide a plurality of air passages, via 45 of 40 and 54 and 55, between the two of the cavities 56 and 58; the ribs, 44 of 40 and 54, leave a straight air passage, center of 56 communicating with 46, unobstructed by ribs 40 at each of the two cavities, 56 and 58, such that at the respective straight air passage connects each of the two cavities 56 and 58 to the plurality of air passages, via 45 of 40 and 54 and 55, between the two of the cavities; wherein the ribs 40 are parallel to a

perimeter, inner wall of 52, of the first depression 50; the elevated contour 47 formed by the ribs 40 is a mound that increases in height, 450 (see figure 5), from a perimeter, inner wall of 52, of the first depression, 50a or 50b, toward a middle 42 of the mound; the ports 52 are hollow tubular structures integral with the rigid block 70 and extending out, via 76a or 76b, from the port side 30 of the block 70; the ports 52 have inner diameters, inner walls of 52, larger in size than the cavity, 58 and 76, in fluid communication therewith; and a means for coupling a rib insert 40, see figure 9 and 10, in the depression, 50a or 50b, the rib insert 40 including ribs 44 extending up from the first depression, 50a or 50b, to form an elevated contour 47 above the pumping side 72 of the rigid block 70, the ribs allowing a pressure applied through the at least one cavity, 56 via element (void) 46, in the first depression, 50a or 50b, to be applied over the elevated contour 47. Further Mattson teaches a rigid block 74 having a plurality of cavities, 58 and 56, on a pumping side 72 of the block in fluid communication with ports 52 accessible from a port side 30 of the block, via removal of element 40 as in Figure 3; a bezel assembly, 74 and 50(a & b), formed by a rigid block 74 having a plurality of cavities, 56 and 58, with a first depression, 50a and/or 50b, having at least one of the cavities 56 in the pumping side 72 of the rigid block 74, ribs 40 extending up from the first depression, 50a and/or 50b, to form an elevated contour 47 above the pumping side 72, and a gasket, (col. 6 ll. 55-67), fitting over the pumping side 72 of the rigid block 74 such that positive pressure, as exemplified by element 72b in figure 2, applied through the at least one cavity 56 in the first depression, 50a and/or 50b, forces a gasket membrane 78 to expand away from the pumping side 72 and negative pressure, as exemplified by element 72a in figure 2, applied through the at least one cavity 56 in the first depression, 50a and/or 50b, pulls the gasket membrane 78 against the elevated contour 47 of the ribs, 40 and 54 and 55; and wherein the ribs, 54 and 55,

are molded, see figure 6, into the first depression 50a and/or 50b. Mattson fails to teach the following limitation that is taught by Snodgrass for a system including a bezel assembly 50 for use in delivery of pneumatic pressure provided with a plurality of cavities, elements 68 and 148, in fluid communication through a rigid block 13 with a plurality of integrally molded ports, element 65 and corresponding port below element 146, capable of delivering a pneumatic pressure, as pneumatic pressure is applied to the port 65 and the corresponding port below element 146, through a solvent bondable tubing connection 71 (Snodgrass - col. 3 ll. 5-13). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide an air driven bezel assembly in order to apply a pneumatic pressure to a diaphragm pump and decrease a risk of fluid damage at a molecular level (Snodgrass - col. 2 ll. 11-18).

#### ***Response to Arguments***

6. Applicant's arguments filed December 31, 2007 have been fully considered but they are not persuasive. The rejections have been modified to address the applicant's amendments.

7. With respect to the rejection of claims 1-66 under 35 U.S.C. 103(a), the applicant argues Mattson et al. 5,638,737 in view of Snodgrass et al. 6,109,881 does not teach the limitations as claimed in the instant application. The applicant argues that Mattson, does not use pneumatic pressure to operate a pump and Snodgrass does not teach a bezel "within the context of the subject patent application." The applicant further argues elements 70, 74, 30, and 52 of Mattson do not teach a bezel, rigid block, a port side, and a "bezel port," respectively. The applicant argues that Mattson does not teach a solvent bondable tubing. The applicant argues elements 56 and 58 of Mattson do not teach cavities.

8. In response to applicant's argument that Mattson does not use pneumatic pressure to operate a pump and Snodgrass does not teach a bezel "within the context of the subject patent

application," the examiner disagrees. The applicant is correct that Mattson does not teach a pump using pneumatic pressure however it is noted by the examiner that the purpose of piston elements 43a and 43b is to apply a force applied a portion of the surface area of a diaphragm. Similarly Snodgrass applies a motive force over a surface area of a diaphragm, similar to that of Mattson, pneumatically. The examiner has relied on Snodgrass to teach that it was known in the art to use pneumatic pressure to positively displace diaphragms, ~~and not to teach a bezel.~~ The applicant's argument asserting Snodgrass does not teach a bezel is noted; however the examiner asserts that the applicant has acted as his or her own lexicographer in disclosing and claiming a bezel. The limitations sufficiently correspond to the specification in defining a bezel to be comprised of, and constituted by, the subject matter which applicant has claimed after the preamble in claims 1, 21, 36, and 49 respectively. Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The accepted meaning "bezel" is any one of the following:

- (1) Also, basil. the diagonal face at the end of the blade of a chisel, or the like, leading to the edge.
  - (2) Jewelry.
    - a. that part of a ring, bracelet, etc., to which gems are attached.
    - b. crown (def. 27).
  - (3) a grooved ring or rim holding a gem, watch crystal, etc., in its setting.
  - (4) Automotive. the part of a vehicle's bodywork that surrounds a light.
- "bezel." Dictionary.com Unabridged (v 1.1). Random House, Inc. 28 Jan. 2008.  
<Dictionary.com <http://dictionary.reference.com/browse/bezel>>.

The applicant has defined a bezel to be a part of the invention which does not correspond to any of the definitions listed above. Therefore the argument that neither Mattson nor Snodgrass teach a limitation of a bezel "within the context of the subject patent application," is not valid beyond any argument directed toward the elements which applicant has claimed a bezel to be comprised of.

9. In response to the argument that elements 70, 74, and 52 of Mattson do not teach a bezel, rigid block, and a "bezel port," the examiner disagrees. With respect to a "bezel" the examiner asserts that this argument is analogous applicant's argument discussed above. A reasonable interpretation of element 70, disclosed as a pumping unit, could include the bezel defined by the limitations and would not require subject matter beyond that which is claimed. In response to applicant's argument that the door (74) of Mattson does not constitute a rigid block the examiner disagrees. The door (74) to which the examiner has cited is considered to be single rigid block with a base portion when closed as shown in figure 1 of Mattson.

Therefore it follows that with element 72 and element 30 on opposite sides of a chamber bordered by element 78 and wherein port 52 extends from the side of element 30, of element 70, through the rigid block to a side of pump element 72 within the rigid block 74 as discussed, Therefore the limitation of a rigid block having cavities on a pumping side in fluid communication with ports located on a port side is met. The examiner also notes that element 30 was cited to indicate the side of element 52 which the examiner considers "port side." The examiner did not rely upon element 30 to teach a specific element, similarly element 72 was used to indicate the side of element 52 the examiner considers to be a pumping side.

10. In response to applicant's argument that Mattson does not teach a solvent bondable tubing, the examiner disagrees. The examiner notes the broadest interpretation of the



limitation of "delivering a pneumatic pressure applied to the port through the solvent tubing" may include a tubing structure that is hollow along a majority of its longitudinal axis but is delimited by a cap or top at a distal end. Elements 48a and 49b are in fact pressure sensors, however each forms the top to a tubular section (not identified as elements 41a and 41b are disclosed as threads) which delivers a pressure to element 52. A modification to Mattson in which pistons 43a and 43b were replaced by a pneumatic pressure supply would utilize the tube section which is capped by elements 48a and 48b. The tube as claimed is required to deliver a pneumatic pressure however this does not limit an invention to delivering a pressure directly with the working fluid (air) to the surface or element subject to the pressure. Therefore if air was applied to an intermediary structure which then translated the pressure as a mechanical force over a surface area (pressure) then the intermediary element would be still delivering a pneumatic pressure.

11. In response to the argument that elements 56 and 58 of Mattson do not teach cavities, the examiner disagrees. Element 56 is disclosed as a central passageway and therefore can clearly be interpreted as a cavity. Element 56 defines a cavity on one side of element 48 and element 58 defines the cavity that surrounds element 56. The examiner as relied upon element 58 to designate a cavity that is bounded by the bottom of the base surface shown and the surface of the outer circumference of element 56. The space defined below element 58 and outside of element 56, and the space within element 56 below element 48 each constitute a cavity on a pump side.

### ***Conclusion***

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Leonard J. Weinstein whose telephone number is (571) 272-9961. The examiner can normally be reached on Monday - Thursday 7:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Devon Karmer can be reached on (571) 272-7118. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LJW



DEVON C. KARMER  
PATENT EXAMINER

Devon Karmer  
1/29/08